

What is claimed is:

1. A method for topographical patterning of a device, the method comprising the steps of:
 - (a) positioning a mask relative to the device, the mask being in the form of a pattern; and
 - (b) etching the pattern into a surface on the device to form at least one sidewall and a rounded edge between the surface on the device and one of the sidewalls in the pattern.
2. The method of claim 1 wherein the rounded edge is an arcuate edge and extends along the at least one sidewall in the pattern of the device.
3. The method of claim 1 wherein the etching step (b) forms an opening in the device.
4. The method of claim 3 further comprising a step of (c) inserting a mating element into the opening on the device such that the rounded edge formed during the etching step (b) permits the mating element to be inserted into the opening without fracturing the device.
5. The method of claim 1 wherein the etching step (b) forms an island on the device, the at least one sidewall located on an edge of the island.
6. The method of claim 1 wherein the pattern of the mask is formed with variable spacings to produce the rounded edge.

7. The method of claim 1 wherein the pattern of the mask is formed with spacings that are closer together near the surface of the device and more widely spaced near the sidewall.

8. The method of claim 7 wherein the spacings in the pattern of the mask are varied to vary the rounded shape.

9. The method of claim 8 wherein the spacings in the pattern of the mask are graduated from a largest spacing near the sidewall to a smallest spacing near the surface.

10. The method of claim 1 wherein the etching step (b) comprises immersing the device within a liquid.

11. The method of claim 1 wherein the etching step (b) comprises spraying a liquid against the surface of the device.

12. The method of claim 1 wherein the etching step (b) comprises exposing the surface of the device to a vapor.

13. The method of claim 1 wherein the etching step (b) comprises exposing the surface of the device to a plasma.

14. The method of claim 1 wherein the etching step (b) comprises directing an ion beam at the surface of the device.

15. The method of claim 14 wherein material in the ion beam chemically reacts with material at the surface of the device.

16. The method of claim 1 wherein the etching step (b) comprises directing a stream of electrons at the surface of the device.

17. The method of claim 1 wherein the etching step (b) comprises directing X-rays at the surface of the device.

18. The method of claim 1 wherein the positioning step (a) comprises applying the mask to the surface of the device.

19. The method of claim 1 wherein the device comprises more than one layer and the etching step (b) comprises etching into one or more of the layers.

20. The method of claim 1 wherein the device is a MEMS device.

21. The method of claim 1 wherein the device is a slider for a disc drive.

22. A MEMS device comprising:

- (a) a body having a surface; and
- (b) a pattern etched into the body, the pattern comprising at least one sidewall and an arcuate edge that extends between the surface of the body and one of the sidewalls.

23. The MEMS device of claim 22 wherein the body is a ceramic.

24. The MEMS device of claim 22 wherein the mating element engages a portion of an actuator that is used in a disc drive.

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25. The MEMS device of claim 22 wherein the body comprises at least two layers that are made from two different materials, the pattern being etched into one or more of the layers.
26. The MEMS device of claim 25 wherein the pattern extends through one layer but does not extend into any other layer.
27. The MEMS device of claim 22 wherein the arcuate edge extends along each sidewall, wherein the arcuate edge facilitates engaging a mating element with the pattern in the body
28. The MEMS device of claim 22 wherein the arcuate edge facilitates engaging a mating element with the pattern in the body.
29. A MEMS device comprising a body having one or more layers, the body comprising means for engaging a mating element with one of the layers in the body.
30. The MEMS device of claim 29 wherein the means for engaging a mating element with one of the layers in the body minimizes any fracturing within the body when the mating element is inserted into the body.